

**REMARKS**

Claims 1-57 remain pending in the present application. Clarifying amendments have been made to independent claims 1, 15, 30, 37, 45 and 52 to more particularly recite the unique and novel features for the embodiments of the present invention. Reconsideration and allowance for all of the claims in the present application are earnestly solicited in view of the following remarks.

Claims 1, 3, 4, 10, 11, 15, 17-19, 24, 30, 32, 33, 37, 39, 40, 45, 48, 49 and 52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,751,002 to Ogata et al. in view of U.S. Patent No. 6,242,750 to Takahashi et al., claims 5, 13, 14, 20, 27-29, 34, 41, 42, 46, 47 and 53-55 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogata et al. in view of Takahashi et al. in further view of U.S. Patent No. 5,399,871 to Ito et al., claims 2, 6, 16, 31 and 38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogata et al. in view of Takahashi et al. in further view of Ito et al. in further view of U.S. Patent No. 5,747,936 to Harrison et al., claims 7, 8, 12, 21, 22, 26, 35, 43, 50 and 56 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogata et al. in view of Takahashi et al. in further view of U.S. Patent No. 4,276,477 to Enge et al., and claims 9, 23, 36, 44, 51 and 57 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogata et al. in view of Takahashi et al. in further view of U.S. Patent No. 5,343,047 to Ono et al. These rejections are respectfully traversed.

Independent claims 1, 14, 30, 37, 45 and 52 have been amended to recite that the implanter and methods are for delivery of low energy, monoenergetic ion beams to an ion implantation target. For example, the ions may be accelerated to energies of about 0.2 to 80 keV according to an embodiment of the present invention. The claims have been further amended to recite that the first voltage may be adjustable and the second or final voltage is generated to an energy that is sufficient for transport without excessive beam expansion. For instance, the first voltage may be from about 0.2 to 80 kV and the second voltage may be adjusted to provide a negative transport voltage

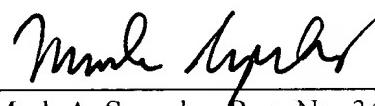
up to -30kV. None of the documents cited in these rejections suggest or imply such delivery of low energy, monoenergetic ion beams at these claimed voltages. Accordingly, it is respectfully requested that these rejections be reconsidered and withdrawn.

For all of the above stated reasons and amendments, it is respectfully submitted that all of the outstanding rejections have been overcome. Accordingly, it is requested that claims 1-57 of the present application be passed to issue.

If any issues remain unresolved, the Examiner is requested to telephone the undersigned attorney.

Please charge any additional fees or credit any overpayments to deposit account No. 50-0896.

Respectfully submitted,  
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